Please amend the claims as follows:

1. (currently amended) A method of creating a transparent [[permiable]] permeable contact lens from a mat of polymer material formed of strands that exhibits the transparency and diffusion characteristics of corneal stromal tissue ~~that a having diameters ranging down to tens of nanometers or less~~ using the process of electrospinng, comprising the steps of:

a. providing a power supply having an [[alternating]] output voltage adjustable over a range extending from 4,000 to 12,000 volts, the power supply providing its output to a first and second terminal,

b. providing a conductive target having a surface on which to form a base surface (a cornea contact surface) of the contact lens, and a needle having a needle tip,

c. electrically coupling the target to the power supply first terminal and the needle to the power supply second terminal to permit the power supply to provide an electric field between the target and the needle tip, ~~and positioning the needle tip at a predetermined distance characterized to aid in the electrospinnng process of fiber deposition,~~

d. dissolving a polymer solute in a suitable solvent,

e. delivering said solute and solvent solution to the needle tip at a controlled pressure,

f. adjusting the output voltage of the power supply to increase the electric field between the needle tip and target until a Taylor cone is formed, but not of a magnitude to result in a corona discharge or coronal effect,

g. providing a means to vary the source to target distance,

h. moving the needle in a linear direction for a fixed distance and then reversing such motion with respect to the target while at the same time indexing the target utilizing a precision positioner and when the desired pattern has been achieved in one axis, the target is rotated ninety degrees and the process repeated, to provide desired patterns over a region of the target exceeding the perimeter of the contact lens to be formed, depositing the electrospun material as a mat, and

i. alternating the polarity of the output voltage of the power supply between the target and the needle tip to prevent charge buildup on electrospun fibers and to permit the deposition of electrospun fibers to enable the construction of an [[optically clear]] electrospun mat of polymer fibers.

2. (original) A method as in claim 1 where the needle is solid

3. (original) A method as in claim 1 where the needle is hollow

4. (original) A method as in claim 1 where the needle is a holey fiber

5. (original) A method as in claim 1 where the needle is a Micro Electro Mechanical Structure device.

6. (original) The method of claim 1 at step h. of moving the needle in patterns over a region of the target that exceeds the perimeter of the contact lens to be formed further comprises the step of:

controlling the potential during the electrospinning process to maintain a mean fibril distance of approximately 200 nm [[while solvent is present]].

7 (original) The method of claim 1 wherein step f. further comprises: adjusting the electric field between the target and the needle tip, the controlled pressure applied to the solute and solvent solution in the needle, and the material temperature to control flow rate of the material onto the mat being formed on the target, the ambient temperature and the distance traveled across the lens region on the target and the gap between the needle tip and the target, to adjust the diameter of the fibers being deposited, the contact lens having an optical transparency that is adjusted by controlling the diameter of the collagen fibers being deposited.

8. (currently amended) The method of claim 1 further comprising the step of modifying step "a" for providing a power supply having an alternating output voltage adjustable

over a range extending from 4,000 to 12,000 volts to be a step of providing a high voltage dc power supply providing its output to a first and second terminal and connecting the output terminals to the power supply output through a switching means for reversing the polarity of the output terminals ~~in response to an operator command~~. at high frequency.

9. (currently amended) The method of claim 1 further comprising the step of modifying step "a" for providing a power supply for having an alternating output voltage adjustable over a range extending from 4,000 to 12,000 volts to be a step of providing a high voltage ac power supply to output terminals~~, the power supply having an operator controlled output frequency~~.

10. (canceled)

11. (currently amended) The method of claim 1 wherein step d. further comprises the step of dissolving [[two or more polymers]] a polymer of fiber materials selected from the group comprising collagen, [[collagen -]] or HEMA[[, ]]~~Silicone hydrogel, Silicone - hydrogel – collagen~~.

12. (canceled)

13. (currently amended) A method of creating a transparent permeable contact lens from a mat of polymer material formed of strands that exhibits the transparency and diffusion characteristics of corneal stromal tissue ~~having diameters ranging down to tens of nanometers or less~~ using the process of electro spinning, comprising the steps of:

a. providing a power supply having an alternating output voltage adjustable over a range extending from 4,000 to 12,000 volts, the power supply providing its output to a first and second terminal,

b. providing a conductive target having a surface on which to form a base surface (a cornea contact surface) of the contact lens, and a needle having needle tip,

c. electrically coupling the target to the power supply first terminal and the needle to the power supply second terminal to permit the power supply to provide an electric field between the target and the needle, ~~and positioning the needle to to provide a Taylor Cone to be formed at a predetermined distance characterized to aid in the electrospinnng process of fiber deposition,~~

d. dissolving a polymer solute in a suitable solvent

e. delivering said solute and solvent solution to the needle tip

f. adjusting the output voltage of the power supply to increase the electric field between the needle tip and target until the Taylor Cone is formed,

g. providing a means to vary the source to target distance,

h. moving the target with respect to the needle <u>in a linear direction for a fixed distance and then reversing such motion with respect to the target while at the same time indexing the target utilizing a precision positioner and when the desired pattern has been achieved in one axis, the target is rotated ninety degrees and the process repeated, to provide desired</u> [[in]] patterns to characterize the contact lens to be formed and controlling the potential during the electrospinning process to maintain a mean fibril distance of approximately 200 nm, and

i. alternating the polarity of the output voltage of the power supply between the target and the needle tip to prevent charge buildup on electrospun fibers and to permit the deposition of electrospun fibers at precise intervals to enable the construction of a precise electrospun mat of polymer fibers.

14. (currently amended) A method of creating a <u>transparent</u> <u>permeable</u> contact lens from a mat of polymer material formed of strands <u>that exhibits the transparency and diffusion characteristics of corneal stromal tissue</u> ~~having diameters ranging from to tens of nanometers or less~~ using the process of electrospinning, comprising the steps of:

a. providing a power supply for having an alternating output voltage adjustable over a range extending from 4,000 to 12,000 volts, the power supply providing its output to a first and second terminal,

b. providing a conductive target having a surface on which to form a base surface (a cornea contact surface) of the contact lens, <u>and</u> a needle,

c. electrically coupling the target to the power supply first terminal and the needle to the power supply second terminal to permit the power supply to provide [[and]] an electric field between the target and the needle at a fixed distance from the target, ~~and positioning the needle above an electrospinning cone to be formed at a predetermined distance characterized to aid in the electrospinnng process of fiber deposition~~,

d. dissolving a polymer solute in a suitable solvent

e. delivering said solute and solvent solution to the needle tip

f. adjusting the output voltage of the power supply to increase the electric field between said needle and target until the electrospinning cone is formed launching a spay of solute and solvent solution to the target, the voltage being adjusted to not of a magnitude to result in a corona discharge or coronal effect,

g. providing a means to vary the source to target distance, and

h. moving the needle in a linear direction for a fixed distance and then reversing such motion with respect to the target while at the same time indexing the target utilizing a precision positioner and when the desired pattern has been achieved in one axis, the target is rotated ninety degrees and the process repeated, to provide desired [[in]] patterns over a region of the target exceeding the perimeter of the contact lens to be formed and controlling the potential during the electrospinning process to maintain a mean fibril distance of approximately 200 nm [[while solvent is present]],

i. alternating the polarity of the output voltage of the power supply between the target and the needle to prevent charge buildup on electrospun fibers and to permit the deposit of electrospun fibers at intervals to enable the construction of a [[optically clear]] electrospun mat of polymer fibers,

j. adjusting the electric field between the target and the needle, the pressure applied to the needle and the material temperature to control flow rate of the material onto the mat being formed on the target, the ambient temperature and the distance traveled across the lens region on the target and the gap between the needle and the target to adjust the diameter and spacing of the fibers being deposited, the contact lens

having an optical transparency that is adjusted by controlling the diameter of the collagen fibers and the spacing of the collagen fibers being deposited.

15. (original) The method of creating a contact lens from a mat of polymer material of claim 13 further comprising:

providing a source of free ions and directing the free ions to the Taylor Cone in step f. to further reduce charge induced whipping.

16. (original) The method of creating a contact lens from a mat of polymer material of claim 14 further comprising:

providing a source of free ions and directing the free ions to the Taylor Cone in step f. to further reduce charge induced whipping.